

REMARKS

Claims 1-6 have been rejected by the Examiner under 35 USC 102(b) as being anticipated by Hackleman, U.S. Patent, 5,640,183. This rejection is respectfully traversed.

The present invention is directed to a method and apparatus for printing a substrate with an ink jet printing device comprising a first printing stage in which a strip of pixel rows is provided with ink drops, where after the print head is displayed in a direction substantially parallel to the pixel columns and a second printing stage in which the strip is provided with supplementary ink drops, wherein the print head is displaced over a distance which is not selected from a plurality of distances but which is a fixed distance such that the same is always substantially equal to the width of one pixel row.

According to the present invention, it has been found that the negative effect on printing results induced by distributed faulty nozzles can be more adequately masked by applying a fixed displacement of the print head instead of using a displacement that has to be chosen for each subsequent print swath. Thus, in the method and apparatus of the present invention, the distance over which the print head is displaced before the next print swath is made, is not selected out of a plurality of distances but is a fixed distance that is determined, that is, is predetermined even before the printing starts.

In the Hackleman method, before a next print swath is being made, an offset, i.e., the distance over which the print head should be displaced in a direction parallel to the nozzle row, is chosen for the print head. Please see in

this regard Column 5, lines 11-15 of the reference patent wherein it is stated that in order to minimize the effect that any defective nozzle may have on the printed image, the offset for each swath is decided upon 603. The Hackleman reference continues to state in Col. 5, lines 16-20 that once the offset is chosen for a particular swath the paper drive is stepped accordingly. Finally, in lines 21-22 of Col. 5, it is stated that the swath is printed in accordance with the choice selected. In other words, each and every time before a print swath is being made, there is chosen a distance (offset) for displacing the print head relative to the paper. Although this may be a non-random choice out of a predetermined selection of available distances, as indicated by Hackleman in Col. 5, lines 13-15, there still has to be made a new selection before each and every print swath. Also, the movement of the print head with respect to the paper has to be in accordance with the selected distance. The disadvantages of this method have been outlined in the application on page 2, lines 7-14, and in the Applicants' response to the previous Office Actions. In order to overcome these disadvantages, a method and apparatus is provided wherein the distance over which the print head is displaced before the next print swath is made, is not selected from a plurality of distances but is a fixed distance that is determined even before the printing is initiated. As the Examiner will note, Claims 1 and 6 have been amended in an effort to reflect the important differences between the present invention and the teachings of the Hackleman reference.

Accordingly, in view of the above amendments and remarks, reconsideration of the rejection and allowance of the claims of the present application are respectfully requested. In the event that the proposed Amendment does not place the present application into condition for allowance, entry thereof is respectfully requested as placing the present application into better condition for appeal.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Mr. Joseph A. Kolasch (Reg. No. 22,463) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

Pursuant to the provisions of 37 C.F.R. §§ 1.17 and 1.136(a), the Applicants respectfully petition for a one (1) month extension of time for filing a response in connection with the present application and the required fee of \$110.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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